

SPC 15 - 1
2009-08-19

Work Order ID 48358-1

June 26, 2009 11:13:23 AM



Page 1

Item ID: D3414-041

Revision ID: B

Item Name: Lug Assembly

Start Date: 15/07/2009 Start Qty: ~~16.00~~ 19

Required Date: 03/08/2009 Req'd Qty: ~~16.00~~

Reference:

Accept



Setup Start



Stop



Cust Item ID:

Customer:

Run Start



Stop



Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3414

Rev B

100

0.00



Waterjet

FLOW CNC Waterjet

Memo

1-Cut as per Dwg D3414

Dwg Rev: _____

Prog Rev: _____

2-Deburr if necessary

0.00



110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Quality Control

Memo

0.00



small fao

Work Order ID 48358

June 26, 2009 11:13:23 AM



Page 3

Item ID: D3414-041

Revision ID: B

Item Name: Lug Assembly

Start Date: 15/07/2009 Start Qty: 16.00

Required Date: 03/08/2009 Req'd Qty: 16.00

Reference:

Accept



Setup Start



Stop



Cust Item ID:

Customer:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

150



QC

Quality Control

QC9- Inspect visual per QSI004- Fusion Welds

0.00

PD 09.07.06

Memo

0.00

160



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

=> Sorker (19)

Memo

0.00

170



Powdercoat

Powder Coating

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

Memo

0.00

START TIME:

10:15AM

OVEN TEMPERATURE:

400°F

FINISH TIME:

10:45AM

M111472 09-07-06 219

Date: Wednesday, 03/06/2009 10:48:57 AM
 User: Jylle Dawson

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : LUG ASSEMBLY
Job Number : 48358	
Estimate Number : 10774	
P.O. Number :	Part Number : D3414041
This Issue : 03/06/2009 S.O. No. :	Drawing Number : D3414 REV.B
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : LARGE FAB ASSY	Drawing Revision : B
Previous Run : 47709	Material :
Written By :	Due Date : 15/06/2009 Qty: 16 Um: Each
Checked & Approved By : <u>JWD 09-06-09</u>	
Comment : Est A 05.09.13 New issue KJ/JLM Est Rev:B 09-02-26 rev.b as per dwg DD verified by:EC	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
----------------	------------------------------	----------------------

1.0	M304S12GA	304/316-0.100" Sheet
-----	-----------	----------------------

**Comment:** Qty.: 0.1523 sf(s)/Unit Total : 2.4360 sf(s)

304/316 stainless steel 0.100" Sheet

Batch: 105130 B9-6-19

2.0	WATER JET	FLOW WATER JET
-----	-----------	----------------

**Comment:** FLOW WATER JET

1-Cut as per Dwg D3414

Dwg Rev: B B9-6-19Prog Rev: B2-Deburr if necessary B9-6-19

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	--

**Comment:** INSPECT PARTS AS THEY COME OFF MACHINE

4.0	QC8	SECOND CHECK
-----	-----	--------------

**Comment:** SECOND CHECK

509/06/19 counts
K24

5.0	BRAKE NC	NC BRAKE
-----	----------	----------

**Comment:** NC BRAKE

Deburr

Form using DT8254 as per Dwg D3414

B9-6-19 counts
K24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 03/06/2009 10:48:57 AM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LUG ASSEMBLY

Job Number: 48358

Part Number: D3414041

Job Number:



Seq. #: Machine Or Operation: Description :

6.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

Sold by counter
724

7.0 D34143 Lug



Comment: Qty.: 1.0000 Each(s)/Unit Total : 16.0000 Each(s)

Lug

Pick:

Qty Part Number Description Batch

1 D3414-3 Lug

A/R SS Rod

B 48382
m9676

EL 9-7-2 (19)

8.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Weld using location Jig DT8484 as per Dwg D3414

EL 9-7-2 (19)

9.0 QC9 VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

15
09-07-06 (15)

10.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

500/07/06 (15)

11.0 ✓ POWDER COATING POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

START TIME: _____

OVEN TEMPERATURE: _____

FINISH TIME: _____

12.0 ✓ QC3 INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 03/06/2009 10:48:57 AM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LUG ASSEMBLY

Job Number: 48358

Part Number: D3414041

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

13.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

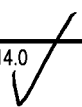
Identify with Dart P/N and B/N using a permanent fine point marker, then Stock

Location: _____

14.0

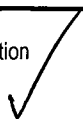
QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 48358
Description: Lug Bracket		Part Number: D3414-1
Inspection Dwg: D3414	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☒ Prototype

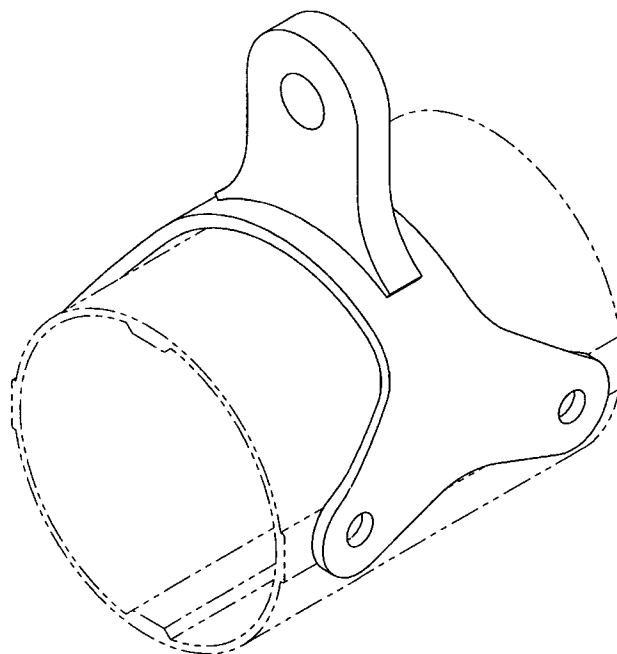
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.313	+0.006/-0.001	0.316	*			
1.19	+/-0.030	1.183	x			
1.00	+/-0.030	1.009	*			
3.38	+/-0.030	3.373	*			
5.350	+/-0.010	5.348	*			
6.23	+/-0.030	6.227	*			
2.500	+/-0.010	2.496	*			
0.37	+/-0.030	0.369	x			
0.100	+/-0.010	0.102	*			

Measured by: RB	Audited by: S	Prototype Approval:	N/A
Date: 9-6-19	Date: 09/06/15	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	08.02.28	New Issue P/O D3414-041	KJ/DD	
B	09.05.27	Dimensions updated per Dwg Rev B	KJ	

ITEM No.	QTY. -041	PART NUMBER	DESCRIPTION
1	X	D3414-041	LUG ASSEMBLY
7	1	D3414-1	LUG BRACKET
8	1	D3414-3	LUG

△B



D3414-041 LUG ASSEMBLY

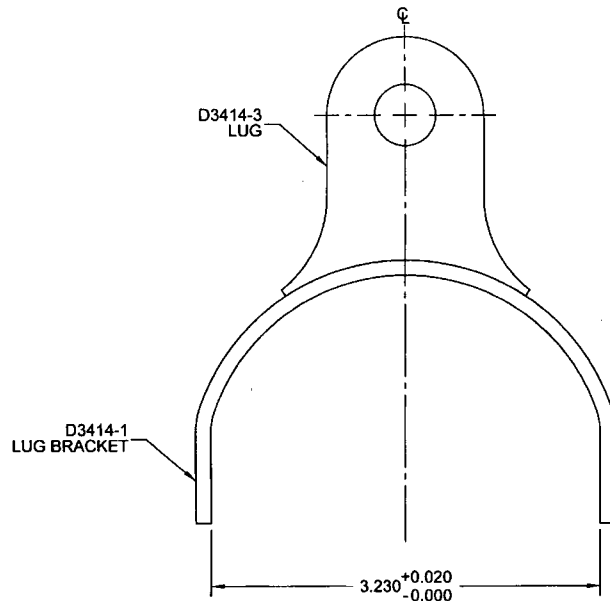
RELEASED
08/02/14

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 16888

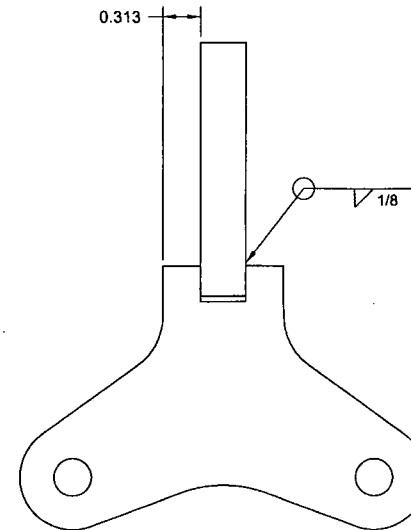
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3414-041" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.52 lbs

B	DRAWING REDRAWN IN SOLIDWORKS WITH CURRENT STANDARDS AND TRANSFERRED TO "B" SIZE BORDER. FLAT PATTERN FOR -1 INCREASED IN LENGTH TO PREVENT FOULING AT INSTL (SEE PAR198). FLAT SPOTS REMOVED FROM -1 (PART NOW "U" SHAPED) FOR EASE OF MANUFACTURE. SHEET 3 ZONE B7 ADDED TOLERANCE TO 3.230 DIM.		AJS	08.09.23
A	NEW ISSUE		CP	05.03.16
REV.	DESCRIPTION		BY	DATE
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	AJS			
CHECKED		DRAWING NO.	REV. B	
MFG. APPR.		D3414	SHEET 1 OF 3	
APPROVED		TITLE	SCALE	
DE APPR.		LUG ASSEMBLY	NTS	
DATE	08.09.23		<small>COPYRIGHT © 2005 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	



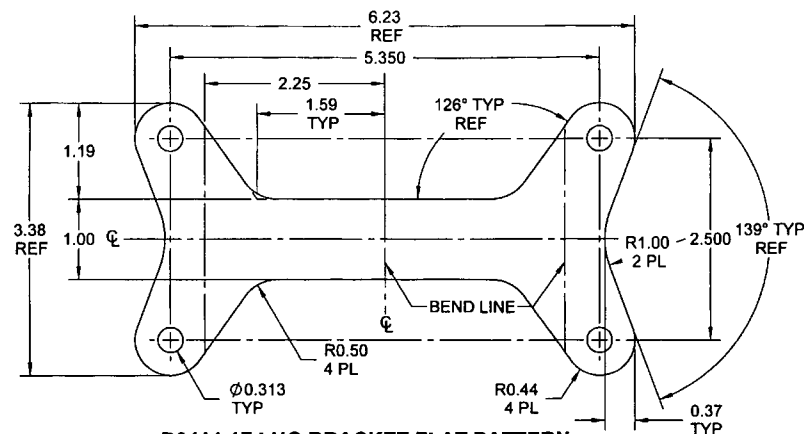
D3414-041 LUG ASSEMBLY



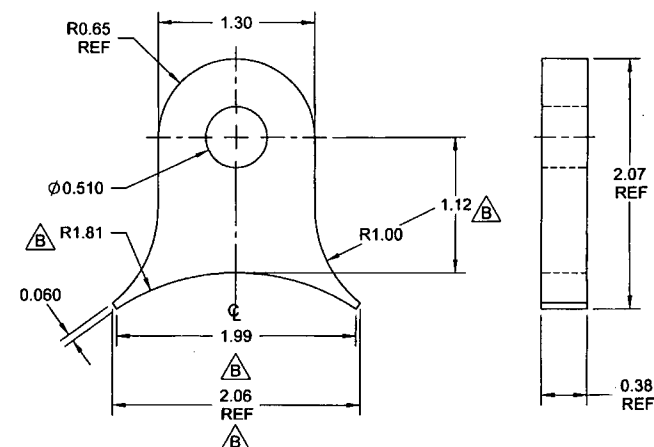
RELEASED
08/02/18

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER NO. 148358

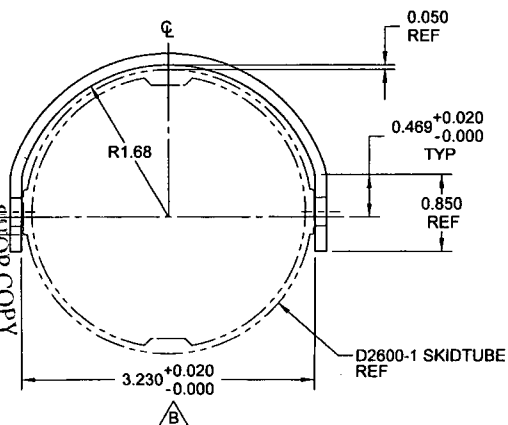
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3414	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		LUG ASSEMBLY	NTS
DATE	08.09.23	<small>COPYRIGHT © 2005 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	



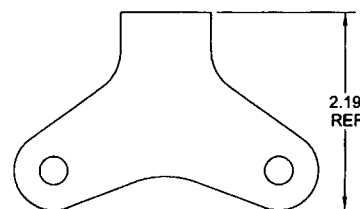
D3414-1F LUG BRACKET FLAT PATTERN



D3414-3 LUG



D3414-1 LUG BRACKET



SIDE VIEW FOR REF ONLY

NOTES:
1) MATERIAL: -1: AISI 304/316 STAINLESS STEEL SHEET, 12 GAUGE (0.100 THICK)
PER MIL-S-5059 (ANNEALED) 2B FINISH OR AMS 5513/5524
REF. DART SPEC. M304S12GA

-3: AISI 304/316 STAINLESS STEEL PLATE
PER MIL-S-5059 (ANNEALED) 2B FINISH OR AMS 5513/5524
REF. DART SPEC. M304S

2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.010 TO 0.020 MAX
6) IDENTIFICATION: N/A
7) WEIGHT: N/A

RELEASED
08/02/13

DESIGN	QP	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3414	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.		LUG ASSEMBLY	NTS
DATE	08.09.23	COPYRIGHT © 2005 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMPILED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	